

MOUNT FOR USE IN OPTICAL FIBER HYDROPHONE ARRAY

Abstract

A mount for use in an optical fiber hydrophone module to loosely secure hydrophone components while avoiding increasing noise to the hydrophone. A hydrophone core has a plurality of mandrels helically wrapped with optical fiber and connected along an axis. A cylindrical metal cage encircles the hydrophone core. Cloth tape is wrapped around and affixed to the metal cage. An open pore foam goes around the metal cage. Thermoplastic adhesive attaches the foam to the cloth tape. A cylindrical woven internal strength member goes around the foam, including two longitudinal positioning tapes. The positioning tapes are fastened to the member at each end, and the foam is between the positioning tapes. Thread is used to sew the positioning tapes to the foam at spaced intervals along the axis.